

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	11245	"database management system"	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/21 10:25
S3	65	neighborhood adj2 lock	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 16:54
S4	0	S3 and data adj2 lock	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 10:16
S5	0	free adj2 space adj2 tuple	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 14:56
S6	4	free with space with tuple	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 10:59
S7	81	index with space with lock	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 10:59
S9	4	index with space with lock and ("707/").ccls.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 16:49
S10	0	("nonadj2serializablewithtransaction").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/20 11:43
S11	7	non adj2 serializable with transaction	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 14:18
S12	10	neighborhood adj2 locking	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 14:12
S13	6	index with space with lock and ("707/").ccls"	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 14:13
S14	1	non adj2 serializable with lock	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 14:18
S15	59	free adj2 space adj2 record	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 14:56
S16	136	free adj2 space adj4 (record or tuple)	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 14:57
S17	45	free adj2 space adj4 (record or tuple) and ("707/").ccls.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 15:43

EAST Search History

S18	6	space adj2 between adj4 (record or tuple) and ("707/").ccls.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 15:02
S19	3	"first locking mode" same "second locking mode"	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 15:45
S20	0	non-serializable adj2 scan	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 15:45
S21	0	non\$1serializable adj2 (scan or search or query)	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 15:47
S22	6	non\$1serializ\$ adj2 (scan or search or query or transaction)	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 15:47
S23	4	index with space with lock and ("707/").ccls.	US-PGPUB; USPAT; USOCR; DERWENT	OR	ON	2006/03/20 16:49
S24	33	database with lock with serial	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/20 16:54
S25	163	database same lock with row	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 14:30
S26	26	partial adj2 lock same database	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 12:30
S27	9	data adj2 item adj2 lock with database	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 12:07
S28	0	free adj space adj2 lock same database	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 12:58
S29	1	free adj space with lock same database	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 12:59
S32	37	partial with lock with row	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 13:06
S33	84	partial\$ with lock with row	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 13:06
S34	1	partial\$ with lock with row with space	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 13:07

EAST Search History

S35	3	partial\$ with lock with row and ("707/")".ccls"	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 13:10
S36	148	index with tuples with table	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 13:11
S37	38	index with tuples with table and ("707/")".ccls"	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 13:39
S38	4638	space adj2 between adj2 (row or tuples or objects)	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 13:40
S39	4305	space adj2 between adj2 (row or tuples or data)	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 13:41
S40	104	space adj2 between adj2 (row or tuples or data) same lock	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 13:41
S41	18	space adj2 between adj2 (row or tuples or data) with lock	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 13:42
S42	4	space adj2 between adj2 (row or tuples or data) with data\$base	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 14:01
S43	23	"hash lock"	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 14:01
S44	64	database same lock with "data item"	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 14:45
S45	109	lock\$ with mode with database	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 14:56
S46	2	row adj index with lock same data\$base	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 15:09
S47	49	snei	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 15:10
S48	18	xnei	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 15:11
S49	89	database with lock\$ with scheme	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 15:26

EAST Search History

S50	1	"index lock scheme"	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 15:26
S51	1	index adj2 lock adj2 scheme	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 15:36
S52	15	access adj privileges with (data adj item)	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 15:43
S53	15	still adj2 allow adj2 read	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 15:45
S54	567	"tree index" and database	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 15:45
S55	125	"tree index" and database and lock	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 15:46
S56	20	"tree index" and database and lock with mode	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 15:50
S57	19	"tree index" and ("707/").ccls. and lock with mode	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/22 15:50
S58	15	new adj2 lock adj2 mode	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/23 08:59
S59	7	(non adj serializable) with transaction	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 13:36
S60	7	(non adj serializable) with transaction	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 13:38
S61	6	(non-serializable) with transaction	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 13:56
S62	29	non-serializab\$5	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 14:30

EAST Search History

S63	31	non adj serializab\$5	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 16:29
S64	9	new adj lock adj type	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 14:23
S65	657	range adj locking	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 15:22
S66	1820	range adj lock\$3	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 15:21
S67	0	(neighborhood range) adj lock\$3 and "707"/".ccls.	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 15:22
S68	121	(neighborhood range) adj lock\$3 and "707"/".ccls.	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 15:29
S69	88	(neighborhood range) adj lock\$3 and "707"/".ccls. and database	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 15:45
S70	1	("5485607").PN.	US-PGPUB; USPAT; USOCR; EPO	OR	OFF	2006/10/03 15:45
S71	0	("nonadjserializableadjlock").PN.	US-PGPUB; USPAT; USOCR; EPO	OR	OFF	2006/10/03 16:29
S72	0	non adj serializab\$5 adj lock	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 16:30

EAST Search History

S73	0	non adj serializab\$5 adj scan	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 16:30
S74	0	non-serializab\$5 adj scan	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 16:30
S75	0	non-serializab\$5 with scan	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 16:30
S76	1	non-serializab\$5 with lock	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/04 16:11
S77	0	non-serializab\$5 with read	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 16:50
S78	0	non-serializ\$ with read	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 16:51
S79	1807	serializ\$ with read	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 16:51
S80	95	serializ\$ adj read	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 16:53
S81	0	nonserializ\$ adj read	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 16:53
S82	0	non-serializ\$ adj read	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 16:53

EAST Search History

S83	0	non-serializ\$ adj (read scan lock)	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 16:54
S84	2	non-serializ\$ adj (read scan lock transaction)	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 16:57
S85	139533	sn	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 16:57
S86	9	sn adj lock	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 18:23
S87	3	new adj lock adj modes same (dbms database)	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 18:31
S88	283	index adj lock	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 18:34
S89	29	index adj lock and "707/".ccls.	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 18:58
S90	3	index adj lock and (lock near2 item)	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 18:36
S91	40	read adj lock with (neighborhood space index)	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 19:00
S92	21	read adj lock with (neighborhood space)	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/03 19:00

EAST Search History

S93	0	database near index with free adj space	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/04 09:39
S94	4	(database near index) same (free adj space)	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/04 09:39
S95	160	(database near index) same (space)	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/04 09:41
S96	2	(database near index) same (space) and \$serializable	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/04 09:53
S97	60	neighborhood near lock	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/04 10:52
S98	0	neighborhood near lock and "707/".ccls.	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/04 09:53
S99	2027	range near lock	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/04 10:52
S10 0	136	range near lock\$3 and "707/".ccls.	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/04 11:08
S10 1	2	range near lock\$3 and MGL	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/04 11:09
S10 2	2	range near lock\$3 and (MGL or "multigranularity locking")	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/04 11:10
S10 3	3	range near lock\$3 and (MGL or "multi-granularity locking")	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/04 11:53
S10 4	11	range near between near (tuples records)	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/04 11:54
S10 5	1	non-serializab\$5 with (lock scan read)	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/04 16:15
S10 6	346	additional with lock with mode	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/04 16:15

EAST Search History

S107	7	additional with lock with mode and "707/".ccls.	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/04 16:16
S108	64	(new additional) with lock with mode and "707/".ccls.	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/04 16:21
S109	27	non-serializable	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/05 16:05
S110	6	non-serializable with (transaction mode read)	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/04 16:28
S111	506	index adj lock\$3	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/04 16:28
S112	43	index adj lock\$3 and "707/".ccls.	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/04 17:39
S113	0	s-non-serializable	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/04 17:39
S114	4005	(two multiple) with lock\$3 with mode	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/05 09:16
S115	65	(two multiple) with lock\$3 with mode and ("707/").ccls.	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/05 09:18
S116	22	(two multiple) near2 lock\$3 with mode and ("707/").ccls.	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/05 13:44
S117	211	index with lock and ("707/").ccls.	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/05 18:16

EAST Search History

S11 8	1	("6618720").PN.	US-PGPUB; USPAT; USOCR; EPO	OR	OFF	2006/10/05 15:16
S11 9	27	non-serializable	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 16:06
S12 0	300	neighborhood with lock	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 16:06
S12 1	0	neighborhood with lock and "707/". ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 16:06
S12 2	1	neighborhood with lock and database	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 16:12
S12 3	91	non-serializ\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 16:13
S12 4	6	non-serializ\$4 with (read lock write)\	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 16:13
S12 5	6	non-serializ\$4 with (read lock write)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 16:13
S12 6	76	index with lock same (read write) and ("707/").ccls.	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/05 16:28

EAST Search History

S12 7	76	index with lock same (read write) and ("707/").ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 16:31
S12 8	37	index near2 lock\$3 same (read write) and ("707/").ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/10/05 17:06
S12 9	1892	mohan.in.	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/05 18:17
S13 0	37	mohan-chandrasekaran.in.	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/05 18:17
S13 1	1	("20050289188").PN.	US-PGPUB; USPAT; USOCR; EPO	OR	OFF	2006/10/07 16:58
S13 2	0	xw adj lock	US-PGPUB; USPAT; USOCR; EPO; IBM_TDB	OR	ON	2006/10/07 17:53
S13 3	1	("6009425").PN.	US-PGPUB; USPAT; USOCR; EPO	OR	OFF	2006/10/07 17:53
S13 4	37	("3916387" "4677550" "4754326" "4821336" "4823310" "4914569" "4945474" "4965516" "5010478" "5123104" "5218696" "5230047" "5237678" "5430869" "5440732" "5475837" "5485607" "5490258" "5495609" "5537574" "5551027" "5551046" "5560007" "5694608" "5717919" "5812996" "5832508").PN. OR ("6009425").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/10/07 17:53
S13 5	10	("6009425").URPN.	USPAT	OR	ON	2006/10/07 17:59

Set	Items	Description
S1	688322	LOCK OR LOCKS OR LOCKED OR LOCKING
S2	18758	NEIGHBORHOOD? ?
S3	57	S1 (10N) S2
S4	1	S3 AND IC=G06F
S5	15281	S1 (10N) (SPACE OR SPACES OR FREESPACE OR (FREE OR EMPTY OR OPEN) () (CELL OR CELLS) OR GAP OR GAPS)
S6	1144749	DATABASE? ? OR DBMS OR RDBMS OR OODB OR DATA()BASE? ? OR - REPOSITOR? OR DIRECTORY OR DIRECTORIES OR TABLE? ?
S7	197	S5 (50N) S6
S8	76	S7 AND IC=G06F
S9	44338	(DATA()ITEM? ? OR TUPLE? ? OR RECORD? ? OR ENTRY OR ENTRIES OR CELL OR CELLS) (7N) (ADJACENT OR ADJACENCY OR NEXT()TO OR ALONG()SIDE OR ADJOINED OR ADJOINING OR NEIGHBORING)
S10	4	S5 (10N) S9
S11	4	IDPAT (sorted in duplicate/non-duplicate order)
S12	4	IDPAT (primary/non-duplicate records only)
S13	44590	S1 (3N) (SECOND OR 2ND OR SECONDARY OR ANOTHER)
S14	796	S13 (5N) (SYNCHRONI?E? ? OR SYNCHRONI?ING OR SYNCHRONI?ATI-ON OR SYNCHRONOUS? OR SYNC OR SAME()TIME OR CONCURRENT? OR PARALLEL OR SIMULTANEOUS?)
S15	1	S7 (30N) S14
S16	8	S5 (30N) S14
S17	7	S16 NOT (S4 OR S12 OR S15)
S18	7	IDPAT (sorted in duplicate/non-duplicate order)
S19	7	IDPAT (primary/non-duplicate records only)
S20	22	S7 AND IC=(G06F-007 OR G06F-017)
S21	22	IDPAT (sorted in duplicate/non-duplicate order)
S22	22	IDPAT (primary/non-duplicate records only)
S23	22	S22 NOT (S4 OR S12 OR S15 OR S19)
File 348:EUROPEAN PATENTS 1978-2006/ 200640		
(c) 2006 European Patent Office		
File 349:PCT FULLTEXT 1979-2006/UB=20061005UT=20060928		
(c) 2006 WIPO/Thomson		
File 350:Derwent WPIX 1963-2006/UD=200663		
(c) 2006 The Thomson Corporation		

NO

12/5,K/3 (Item 3 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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Control for storage and retrieval system.
Steuerung eines Speicherungs- und Wiederauffindungssystems.
Commande d'un systeme d'emmagasinage et d'extraction.

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PATENT (CC, No, Kind, Date): EP 265626 A2 880504 (Basic)
EP 265626 A3 891102

APPLICATION (CC, No, Date): EP 87112540 870828;

PRIORITY (CC, No, Date): US 924488 861029

DESIGNATED STATES: DE; FR; GB; IT

INTERNATIONAL PATENT CLASS (V7): G06F-015/24;

CITED PATENTS (EP A): US 4181947 A; EP 37649 A; US 4512747 A; US 4564102 A

ABSTRACT EP 265626 A2

A storage and retrieval system is controlled to prevent "grid lock", or interference between items exiting or entering the system and those items in transit within the system. The control method comprises the steps of determining if the system is or is not at saturation, if there is adequate space in exit and entry queues, if there is or is not absence of space in the conveyor loop sections adjacent to the loop conveyor entry points, and if or not there is adequate space ahead of an exit point, followed by imposition of delays and other actions preventing the interference of items already in the conveyor system, or entering or exiting therefrom. The control means can be a programmed general purpose computer.

ABSTRACT WORD COUNT: 126

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 880504 A2 Published application (A1with Search Report
;A2without Search Report)

Change: 881012 A2 Representative (change)

Examination: 881019 A2 Date of filing of request for examination:
880823

Change: 890503 A2 Representative (change)

Search Report: 891102 A3 Separate publication of the European or
International search report

Examination: 910807 A2 Date of despatch of first examination report:
910624

Withdrawal: 920520 A2 Date on which the European patent application
was deemed to be withdrawn: 911105

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	450
SPEC A	(English)	EPABF1	2376
Total word count - document A			2826
Total word count - document B			0
Total word count - documents A + B			2826

...SPECIFICATION to appropriate programming which includes appropriate monitoring steps relating to conditions which could produce grid lock .
Such conditions include system saturation, inadequate space in exit and entry queues, absence of space in loop sections adjacent loop

conveyor **entry** points, and inadequate space ahead of an exit point.
Sensing of these conditions will alter...

15/5,K/1 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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Management of the size and number of memory segments allocated to processes in a multiprocessing environment.

Verwaltung der Grosse und der Anzahl der den Prozessen zugeordneten Speichersegmente in einer Konfiguration fur Mehrfachverarbeitung.

Gestion de la taille et du nombre de segments memoire alloues par taches dans un environnement de multitraitement.

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LEGAL REPRESENTATIVE:

Moss, Robert Douglas (34141), IBM United Kingdom Limited Intellectual Property Department Hursley Park, Winchester Hampshire SO21 2JN, (GB)

PATENT (CC, No, Kind, Date): EP 239715 A2 871007 (Basic)

EP 239715 A3 881026

EP 239715 B1 920909

APPLICATION (CC, No, Date): EP 87100005 870102;

PRIORITY (CC, No, Date): US 825508 860203

DESIGNATED STATES: DE; FR; GB; IT

INTERNATIONAL PATENT CLASS (V7): G06F-009/46;

CITED REFERENCES (EP A):

PROCEEDINGS OF THE IFIP WORKING CONFERENCE ON MODELLING IN DATA BASE MANAGEMENT SYSTEMS, Freudenstadt, 5th-8th January 1976, pages 365-394, North-Holland Publishing Co., Amsterdam, NL; J.N. GRAY et al.:

"Granularity of locks and degrees of consistency in a shared data base" COMMUNICATIONS OF THE ACM, vol. 24, no. 10, October 1981, pages 632-646, Association for Computing Machinery; D.D. CHAMBERLIN et al.: "A history and evaluation of system R";

ABSTRACT EP 239715 A2

A method utilizing a coordinated pair of locking limits for managing concurrency and lock granularity tradeoff relations. A first limit is placed on the number of small granularity locks per resource. A second limit is placed on the number of locks assignable to each process. When the first number of small locks is reached, the method withdraws the small locks and grants only one lock to the entire resource (lock escalation). When a process requests an additional lock over the second limit, the lock is refused.

ABSTRACT WORD COUNT: 90

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 871007 A2 Published application (A1with Search Report ;A2without Search Report)

Examination: 880210 A2 Date of filing of request for examination: 871211

Change: 880810 A2 Representative (change)

Search Report: 881026 A3 Separate publication of the European or International search report

Examination: 910710 A2 Date of despatch of first examination report: 910527

Grant: 920909 B1 Granted patent

Change: 921230 B1 Representative (change)

Oppn None: 930901 B1 No opposition filed

Lapse: 970423 B1 Date of lapse of the European patent in a Contracting State: FR 960930

Lapse: 991020 B1 Date of lapse of European Patent in a

contracting state (Country, date): IT
19920909,

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	245
CLAIMS B	(German)	EPBBF1	256
CLAIMS B	(French)	EPBBF1	290
SPEC B	(English)	EPBBF1	4074
Total word count - document A			0
Total word count - document B			4865
Total word count - documents A + B			4865

...CLAIMS 3. A method according to claim 1, wherein the step of refusing grant of a **lock** to a process **concurrently** holding the **second** limit **number** of **locks** further includes the step of terminating the execution of said process.

4. A method according to claim 1, wherein the multiprocessing environment includes a relational **data base** management system.

19/5,K/7 (Item 7 from file: 349)
 DIALOG(R)File 349:PCT FULLTEXT
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00995747 **Image available**

A SYSTEM AND METHOD FOR EFFICIENT LOCK RECOVERY
SYSTEME ET PROCEDE DE REPRISE DE VERROUILLAGE EFFICACE

Patent Applicant/Assignee:

POLYSERVE INC, Suite 150, 20400 NW Amberwood Drive, Beaverton, OR 97006,
 US, US (Residence), US (Nationality)

Inventor(s):

KINGSBURY Brent A, Suite 150, 20400 NW Amberwood Drive, Beaverton, OR
 97006, US,

Legal Representative:

YI Susan C (agent), Van Pelt & Yi LLP, Suite 200, 10050 N. Foothill
 Blvd., Cupertino, CA 95014, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200325751 A1 20030327 (WO 0325751)

Application: WO 2002US30085 20020920 (PCT/WO US02030085)

Priority Application: US 2001324196 20010921; US 2001324226 20010921; US
 2001324224 20010921; US 2001324242 20010921; US 2001324195 20010921; US
 2001324243 20010921; US 2001324787 20010924; US 2001327191 20011001

Designated States:

(Protection type is "patent" unless otherwise stated - for applications
 prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ
 EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR
 LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
 SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class (v7): G06F-011/00

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 7079

English Abstract

A system and method are disclosed for providing a system and method for
 an efficient lock recovery. In one embodiment of the present invention
 (150), a multiple node networked system shares a resource such a shared
 storage (106a). Among various other aspects of the present invention,
 when there is a change, such as a server failure, that prompts a recovery
 , the recovery can be performed in parallel among the nodes (102a). A
 further aspect of an embodiment of the present invention includes
 recovering a lock with a higher level of exclusion prior to another lock
 with a lower level of exclusion.

French Abstract

L'invention concerne un systeme et un procede de reprise de verrouillage
 efficace. Selon un mode de realisation, un systeme en reseau a noeuds
 multiples partage une ressource de type unite de stockage partagee. Un
 aspect, parmi plusieurs autres aspects de l'invention, consiste a
 effectuer une reprise en parallele parmi les noeuds lors d'un changement,
 de type panne de serveur, qui necessite une reprise. Un autre aspect d'un
 mode de realisation consiste a effectuer une reprise de verrouillage a un
 niveau d'exclusion superieur prealablement a un autre verrouillage a un
 niveau d'exclusion inferieur.

Legal Status (Type, Date, Text)

Publication 20030327 A1 With international search report.

Publication 20030327 A1 Before the expiration of the time limit for
amending the claims and to be republished in the
event of the receipt of amendments.
Examination 20031224 Request for preliminary examination prior to end of
19th month from priority date
Correction 20040506 Corrected version of Pamphlet: pages 1/15-15/15,
drawings, replaced by new pages 1/15-15/15; due to
late transmittal by the receiving Office
Republication 20040506 A1 With international search report.

Fulltext Availability:
Claims

Claim

... of a higher level of exclusion than the second lock.

25

. A method for recovering **locks** comprising:

recognizing a change in membership;

providing a first **lock space** ;

providing a second **lock space** ;

recovering a **lock** ;

recovering a second **lock** ;

wherein recovering the first lock occurs approximately in **parallel** to
the recovering of the **second lock** .

1 0

25 A computer program product for recovering locks, the computer program
product being...

Bad Date

23/5,K/19 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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0015512895 - Drawing available
WPI ACC NO: 2006-077038/200608
XRPX Acc No: N2006-066791

Database management system for use in computer, has allocation lock
permitting only single transaction to acquire space on data page at any
one time and lock manager enabling sub page level locking across
concurrent transactions

Patent Assignee: MICROSOFT CORP (MICT)

Inventor: BAILEY S; NETTLETON D J

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update
US 20050289188	A1	20051229	US 2004879664	A	20040629	200608 B

Priority Applications (no., kind, date): US 2004879664 A 20040629

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 20050289188	A1	EN	23	13	

Alerting Abstract US A1

NOVELTY - The system has an allocation lock (110) permitting only a
single transaction to acquire space on a data page at any one time. A heap
manager determines space availability for the page. A lock manager enables
sub page level locking across concurrent transactions (112-116). Each
transaction modifies a copy of the page. The heap manager component and the
lock enforce conditions on the transaction that operates on the page.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- 1.a method for facilitating synchronization in concurrent transactions
- 2.a computer readable medium having computer executable instructions for
carrying out a method for facilitating synchronization in concurrent
transactions.

USE - Used in a computer.

ADVANTAGE - The allocation lock can lock the data page when the
transaction requires additional space to be used on the data page, such
that no other transaction that requires additional space on the page is
permitted to operate on same page. The allocation lock can provide for
efficient merging, thus improving multi user operation and conserving
system resources. The lock manager can facilitate compatibility of
operations across concurrent transactions, and effectively administer
logical considerations during modifications of the database.

DESCRIPTION OF DRAWINGS - The drawing shows a schematic diagram of an
allocation lock that operates across a plurality of transactions.

- 100 Multi-state transaction environment
- 110 Allocation lock
- 112-116 Concurrent transactions

Title Terms/Index Terms/Additional Words: DATABASE; MANAGEMENT; SYSTEM;
COMPUTER; ALLOCATE; LOCK; PERMIT; SINGLE; TRANSACTION; ACQUIRE; SPACE;
DATA; PAGE; ONE; TIME; MANAGE; ENABLE; SUB; LEVEL; CONCURRENT

Class Codes

International Classification (Main): G06F-007/00
US Classification, Issued: 707200000

File Segment: EPI;
DWPI Class: T01

Manual Codes (EPI/S-X): T01-J05B4M; T01-S03

Database management system for use in computer, has allocation lock permitting only single transaction to acquire space on data page at any one time and lock manager enabling sub page level locking across concurrent transactions

Class Codes

International Classification (Main): G06F-007/00

Original Publication Data by Authority

Claims:

b 1 /b . A database management system comprising:an allocation lock that permits only a single transaction to acquire space on a data page at any one time.

23/5,K/21 (Item 3 from file: 350)
 DIALOG(R)File 350:Derwent WPIX
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0014812820 - Drawing available
 WPI ACC NO: 2005-160508/200517
 Related WPI Acc No: 2005-487557
 XRPX Acc No: N2005-134656

Computer resource object updating method e.g. for database object, involves receiving pair of locks sequentially from lock manager process, and determining whether version number value in both locks are equal

Patent Assignee: CISCO TECHNOLOGY INC (CISC-N)

Inventor: SADJADI S

Patent Family (1 patents, 1 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update
US 6850938	B1	20050201	US 2001781525	A	20010208	200517 B

Priority Applications (no., kind, date): US 2001781525 A 20010208

Patent Details

Number	Kind	Lan	Pg	Dwg	Filing Notes
US 6850938	B1	EN	20	4	

Alerting Abstract US B1

NOVELTY - A pair of locks are sequentially received from a lock manager process, for accessing to a particular resource object, and it is determined whether the version number value in both locks are equal. When both values are equal, an updated resource object is committed to resource, and the version number value is replaced with another value computed by adding the secondary lock value with preset version change value.

DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- 1.computer readable medium storing computer resource object updating program; and
- 2.apparatus for updating computer resource object.

USE - For updating computer resource object such as database object, printer object or other computer controlled device object using optimistic locks, for network management system used for managing data exchange between client device such as personal computer (PC) or network router, and host server through network such as internet, local area network (LAN) and integrated services digital network (ISDN).

ADVANTAGE - Allows lock manager to perform database updates with optimistic locking. Thus extra space required for version numbers is eliminated.

DESCRIPTION OF DRAWINGS - The figure shows a flowchart explaining interaction between client application, database server and lock manager.

Title Terms/Index Terms/Additional Words: COMPUTER; RESOURCE; OBJECT; UPDATE; METHOD; DATABASE; RECEIVE; PAIR; LOCK; SEQUENCE; MANAGE; PROCESS; DETERMINE; VERSION; NUMBER; VALUE; EQUAL

Class Codes

International Classification (Main): G06F-007/00
 US Classification, Issued: 707008000; 707009000, 709248000, 713165000, 713167000, 711150000, 711151000

File Segment: EPI;

DWPI Class: T01

Manual Codes (EPI/S-X): T01-J05B4M; T01-N02B1A; T01-S03

Alerting Abstract ...ADVANTAGE - Allows lock manager to perform

database updates with optimistic locking . Thus extra space required
for version numbers is eliminated...

Class Codes

International Classification (Main): G06F-007/00

Set	Items	Description
S1	149752	LOCK OR LOCKS OR LOCKED OR LOCKING
S2	13254	NEIGHBORHOOD? ?
S3	51	S1 (10N) S2
S4	2587	S1 (10N) (SPACE OR SPACES OR FREESPACE OR (FREE OR EMPTY OR OPEN) (3N) (CELL OR CELLS) OR GAP OR GAPS)
S5	92	S1 (10N) ((FREE OR EMPTY OR OPEN) (3N) (SECTOR? ? OR BLOCK? ? OR PORTION? ? OR SECTION? ? OR SEGMENT? ?))
S6	229257	DATABASE? ? OR DBMS OR RDBMS OR OODB OR DATA()BASE? ? OR - REPOSITOR? OR DIRECTORY OR DIRECTORIES OR TABLE? ?
S7	3314	(DATA()ITEM? ? OR TUPLE? ? OR RECORD? ? OR ENTRY OR ENTRIES OR CELL OR CELLS) (7N) (ADJACENT OR ADJACENCY OR NEXT()TO OR ALONG()SIDE OR ADJOINED OR ADJOINING OR NEIGHBORING)
S8	3483	S1 (3N) (SECOND OR 2ND OR SECONDARY OR ANOTHER)
S9	50	S8 (5N) (SYNCHRONI?E? ? OR SYNCHRONI?ING OR SYNCHRONI?ATION OR SYNCHRONOUS? OR SYNC OR SAME()TIME OR CONCURRENT? OR PARALLEL OR SIMULTANEOUS?)
S10	2	S3 AND IC=G06F
S11	0	(S4 OR S5) (10N) S7
S12	1	(S4 OR S5) AND S9
S13	32	(S4 OR S5) AND S6
S14	32	IDPAT (sorted in duplicate/non-duplicate order)
S15	32	IDPAT (primary/non-duplicate records only)
S16	4	S15 AND IC=G06F

File 347:JAPIO Dec 1976-2005/Dec(Updated 060404)
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16/5/2

DIALOG(R)File 347:JAPIO

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03939439 **Image available**

BUS LOCK CONTROL SYSTEM AT THE TIME OF PAGE **TABLE** UPDATE

PUB. NO.: 04-304539 [JP 4304539 A]
PUBLISHED: October 27, 1992 (19921027)
INVENTOR(s): YAMAHATA HITOSHI
APPLICANT(s): NEC CORP [000423] (A Japanese Company or Corporation), JP
(Japan)
APPL. NO.: 03-069627 [JP 9169627]
FILED: April 02, 1991 (19910402)
INTL CLASS: [5] **G06F-012/08** ; **G06F-013/42**
JAPIO CLASS: 45.2 (INFORMATION PROCESSING -- Memory Units)
JOURNAL: Section: P, Section No. 1500, Vol. 17, No. 118, Pg. 162,
March 11, 1993 (19930311)

ABSTRACT

PURPOSE: To improve the utilizing efficiency of a system bus and the performance of a system by providing a shared bit in both a page **table** entry(PTE) and an address conversion index mechanism (TLB) entry.

CONSTITUTION: Processors 2 and 5 are equipped with a TLB 16 whose data entry part is equipped with a shared bit 23 which sets the value of a shared bit 19 in a PTE 13 at the time of exchanging the entry. Then, a bus lock signal is controlled by a controlling means according to the value of the shared bit 23 in the TLB 16 detected by a detecting means at the time of updating the PTE 13, and the bus lock signal is not made valid from starting the reading at the time of updating the PTE 13 which is not shared. Therefore, a bus **lock** period accompanied with a shared address **space** operation can be the irreducible minimum in a multiprocessor system, and the utilizing efficiency of the system bus and the performance of the system can be improved.

Set	Items	Description
S1	217303	LOCK OR LOCKS OR LOCKED OR LOCKING
S2	84395	NEIGHBORHOOD? ?
S3	36	S1 (10N) S2
S4	1948	S1 (10N) (SPACE OR SPACES OR FREESPACE OR (FREE OR EMPTY OR OPEN) (3N) (CELL OR CELLS) OR GAP OR GAPS)
S5	38	S1 (10N) ((FREE OR EMPTY OR OPEN) (3N) (SECTOR? ? OR BLOCK? ? OR PORTION? ? OR SECTION? ? OR SEGMENT? ?))
S6	1633395	DATABASE? ? OR DBMS OR RDBMS OR OODB OR DATA()BASE? ? OR - REPOSITOR? OR DIRECTORY OR DIRECTORIES OR TABLE? ?
S7	22835	(DATA()ITEM? ? OR TUPLE? ? OR RECORD? ? OR ENTRY OR ENTRIES OR CELL OR CELLS) (7N) (ADJACENT OR ADJACENCY OR NEXT()TO OR ALONG()SIDE OR ADJOINED OR ADJOINING OR NEIGHBORING)
S8	2350	S1 (3N) (SECOND OR 2ND OR SECONDARY OR ANOTHER)
S9	63	S8 (5N) (SYNCHRONI?E? ? OR SYNCHRONI?ING OR SYNCHRONI?ATION OR SYNCHRONOUS? OR SYNC OR SAME()TIME OR CONCURRENT? OR PARALLEL OR SIMULTANEOUS?)
S10	1	S3 AND S6
S11	63	(S4 OR S5) AND S6
S12	0	(S4 OR S5) (10N) S7
S13	0	S11 AND S9
S14	53	S11 NOT PY>2003
S15	31	RD (unique items)
File	8: Ei	Compendex(R) 1970-2006/Sep W4 (c) 2006 Elsevier Eng. Info. Inc.
File	35:	Dissertation Abs Online 1861-2006/Sep (c) 2006 ProQuest Info&Learning
File	65:	Inside Conferences 1993-2006/Oct 05 (c) 2006 BLDSC all rts. reserv.
File	2:	INSPEC 1898-2006/Sep W4 (c) 2006 Institution of Electrical Engineers
File	94:	JICST-EPlus 1985-2006/Jul W1 (c) 2006 Japan Science and Tech Corp(JST)
File	111:	TGG Natl.Newspaper Index(SM) 1979-2006/Sep 22 (c) 2006 The Gale Group
File	6:	NTIS 1964-2006/Sep W4 (c) 2006 NTIS, Intl Cpyrght All Rights Res
File	144:	Pascal 1973-2006/Sep W2 (c) 2006 INIST/CNRS
File	434:	SciSearch(R) Cited Ref Sci 1974-1989/Dec (c) 2006 The Thomson Corp
File	34:	SciSearch(R) Cited Ref Sci 1990-2006/Oct W1 (c) 2006 The Thomson Corp
File	62:	SPIN(R) 1975-2006/Sep W3 (c) 2006 American Institute of Physics
File	99:	Wilson Appl. Sci & Tech Abs 1983-2006/Jul (c) 2006 The HW Wilson Co.
File	95:	TEME-Technology & Management 1989-2006/Oct W1 (c) 2006 FIZ TECHNIK
File	56:	Computer and Information Systems Abstracts 1966-2006/Sep (c) 2006 CSA.
File	57:	Electronics & Communications Abstracts 1966-2006/Sep (c) 2006 CSA.
File	60:	ANTE: Abstracts in New Tech & Engineer 1966-2006/Sep (c) 2006 CSA.
File	266:	FEDRIP 2006/Aug Comp & dist by NTIS, Intl Copyright All Rights Res
File	583:	Gale Group Globalbase(TM) 1986-2002/Dec 13 (c) 2002 The Gale Group
File	438:	Library Lit. & Info. Science 1984-2006/Sep (c) 2006 The HW Wilson Co.

15/5/12 (Item 12 from file: 8)
 DIALOG(R)File 8: Ei Compendex(R)
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04623696 E.I. No: EIP97023519643

Title: Towards effective and efficient free space management

Author: McAuliffe, Mark L.; Carey, Michael J.; Solomon, Marvin H.

Corporate Source: Univ of Wisconsin - Madison, Madison, WI, USA

Conference Title: Proceedings of the 1996 ACM SIGMOD International Conference on Management of Data

Conference Location: Montreal, Can **Conference Date:** 19960604-19960606

Sponsor: ACM SIGMOD

E.I. Conference No.: 45963

Source: SIGMOD Record (ACM Special Interest Group on Management of Data)
 v 25 n 2 June 1996.. p 389-400

Publication Year: 1996

CODEN: SRECD8

Language: English

Document Type: CA; (Conference Article) **Treatment:** G; (General Review);
 T; (Theoretical)

Journal Announcement: 9704W1

Abstract: An important problem faced by many **database** management systems is the 'online object placement problem' - the problem of choosing a disk page to hold a newly allocated object. In the absence of clustering criteria, the goal is to maximize storage utilization. For main-memory based systems, simple heuristics exist that provide reasonable space utilization in the worst case and excellent utilization in typical cases. However, the storage management problem for **databases** includes significant additional challenges, such as minimizing I/O traffic, coping with crash recovery, and gracefully integrating **space** management with **locking** and logging. We survey several object placement algorithms, including techniques that can be found in commercial and research **database** systems. We then present a new object placement algorithm that we have designed for use in Shore, an object-oriented **database** system under development at the University of Wisconsin - Madison. Finally, we present results from a series of experiments involving actual Shore implementations of some of these algorithms. Our results show that while current object placement algorithms have serious performance deficiencies, including excessive CPU or main memory overhead, I/O traffic, or poor disk utilization, our new algorithm consistently demonstrates excellent performance in all of these areas. (Author abstract) 14 Refs.

Descriptors: *Object oriented programming; **Database** systems; Storage allocation (computer); Resource allocation; Heuristic programming; Algorithms; Input output programs

Identifiers: Shore object oriented **database** system; Free space management

Classification Codes:

723.1 (Computer Programming); 723.3 (Database Systems); 722.1 (Data Storage, Equipment & Techniques); 912.2 (Management)

723 (Computer Software); 722 (Computer Hardware); 912 (Industrial Engineering & Management); 921 (Applied Mathematics)

72 (COMPUTERS & DATA PROCESSING); 91 (ENGINEERING MANAGEMENT); 92 (ENGINEERING MATHEMATICS)

15/5/16 (Item 1 from file: 65)
DIALOG(R)File 65:Inside Conferences
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00266505 INSIDE CONFERENCE ITEM ID: CN002468967
Algorithms for Flexible Space Management in Transaction Systems
Supporting Fine-Granularity Locking

Mohan, C.; Haderle, D.

CONFERENCE: Advances in database technology: EDBT '94-4th International
conference on extending database technology

LECTURE NOTES IN COMPUTER SCIENCE, 1994; ISSUE 779 P: 131-144
Springer, 1994

ISSN: 0302-9743 ISBN: 3540578188; 0387578188

LANGUAGE: English DOCUMENT TYPE: Conference Selected papers

CONFERENCE EDITOR(S): Jarke, M.; Bubenko, J.; Jeffery, K.

CONFERENCE LOCATION: Cambridge

CONFERENCE DATE: Mar 1994 (199403)

BRITISH LIBRARY ITEM LOCATION: 5180.185000

DESCRIPTORS: **database** technology; EDBT; extending **database** technology

15/5/19 (Item 3 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2006 Institution of Electrical Engineers. All rts. reserv.

07191295 INSPEC Abstract Number: C1999-04-6160-018

Title: A new space reservation method for hotspot tables

Author(s): Kang-Woo Lee; Hyoung-Joo Kim

Journal: Journal of KISS(B) (Software and Applications) vol.25, no.11

p.1584-93

Publisher: Korea Inf. Sci. Soc,

Publication Date: Nov. 1998 Country of Publication: South Korea

CODEN: CKNBFV ISSN: 1226-2285

SICI: 1226-2285(199811)25:11L:1584:SRMH;1-T

Material Identity Number: E346-1999-001

Language: Korean Document Type: Journal Paper (JP)

Treatment: Practical (P)

Abstract: Workflow, groupware and order inventory systems are emerging as new important DBMS applications. In those applications, many concurrent transactions insert and delete records on the same **table**. Those applications, however, might have several performance problems, since previous space reservation methods do not support this new type of access pattern well. This paper proposes a new space reservation method which extends the lock table that keeps track of the reserved pages and which guarantees correct reserved space check with low checking overhead. This paper also shows that the proposed method provides better performance than the previous ones when there are many concurrent insertions and deletions on the **table** by simulation studies. (15 Refs)

Subfile: C

Descriptors: **database** management systems; groupware; software performance evaluation; storage allocation; transaction processing; workflow management software

Identifiers: space reservation method; hotspot **tables**; workflow systems; groupware; order inventory systems; **databases**; concurrent transactions; record insertion; record deletion; performance problems; access pattern; lock **table**; simulation

Class Codes: C6160 (Database management systems (DBMS)); C6120 (File organisation)

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STIC Search Results Feedback Form

EIC 2100

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

Alyson Dill, EIC 2100 Team Leader
272-3527, RND 4B28

Voluntary Results Feedback Form

➤ I am an examiner in Workgroup: Example: 2133

➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(Journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

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STIC EIC 2100 Search Request Form

204013
28

Today's Date:

10/6/2006

What date would you like to use to limit the search?

Priority Date: 9/24/03

Other:

Name Dennis Vautrot

AU 2167 Examiner # 81978

Room # 3B11 Phone 22184

Serial # 10/671,297

Format for Search Results (Circle One):

PAPER

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EMAIL

Where have you searched so far?

USP

DWPI

EPO

JPO

ACM

IBM TDB

IEEE

INSPEC

SPI

Other

Is this a "Fast & Focused" Search Request? (Circle One) YES NO

A "Fast & Focused" Search is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2100 and on the EIC2100 NPL Web Page at <http://ptoweb/patents/stic/stic-ic2100.htm>.

What is the topic, novelty, motivation, utility, or other specific details defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, definitions, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract, background, brief summary, pertinent claims and any citations of relevant art you have found.

neighborhood locking → relates to being able to put a lock on the free space adjacent to and associated with a data item in a database.
(I found one source but want to see what else might be out there).

* This neighborhood lock has to be created concurrently with ~~the~~ another ~~separate~~ locking mode for the data item - See Claim 1 →
" first locking mode for the data item... 2nd locking mode for neighborhood associated w/ data item."

claim 10
* Different access privileges for a trans. accessing the data item ~~and~~ from another transaction accessing the neighborhood associated with the data item

STIC Searcher

Ruth Spink

Phone

2 - 3524

Date picked up

10/6/06

Date Completed

10/6/06





STIC Search Report

EIC 2100

STIC Database Tracking Number: 2006-01-01

TO: Dennis L Vautrot
Location: RND 3 B11
Art Unit: 2167
Friday, October 06, 2006

Case Serial Number: 10671297

From: Ruth E. Spink
Location: EIC 2100
RND-4B31
Phone: 23524

Ruth.spink@uspto.gov

Search Notes

Dennis- Attached is the foreign patent and NPL search for the above referenced case. Be sure to contact me if you wish to refocus this search.

Ruth